

Claims

1. A method of distributing a network parameter information among network nodes (A - E) of a transmission network, said method comprising the steps of:
 - 5 a) determining based on a topology information of said transmission network a spanning tree of routing paths corresponding to the shortest paths from said network node to other nodes;
 - b) detecting a network parameter change in a network node of said transmission network; and
 - 10 c) distributing said network parameter information indicating said network parameter change from said network node to said other nodes in accordance with said spanning tree.
2. A method according to claim 1, wherein said network parameter information is used in a network operation and management procedure in a radio access network.
- 15 3. A method according to claim 2, wherein said network operation and management procedure is an MDC point selection procedure.
4. A method according to any one of the preceding claims, wherein said network parameter information relates to a QoS-related parameter.
- 20 5. A method according to claim 4, wherein said network parameter information comprises at least one of a link state, a link utilization, a node utilization, and a macro diversity combining load.
6. A method according to any one of the preceding claims, further comprising the step of deriving said topology information from at least one routing table.
- 25 7. A method according to claim 6, wherein one routing table is provided for each network node.
8. A method according to claim 7, wherein said one routing table provides a branch information for each offspring node of said network node.

9. A method according to claim 8, wherein said branch information indicates branches of the concerned offspring node.
10. A method according to any one of the preceding claims, further comprising the step of deriving said topology information from a link state database of a routing protocol of said transmission network.
11. A method according to any one of claims 1 to 9, further comprising the step of obtaining said topology information by running a flooding scheme and a shortest-path-first algorithm.
12. A method according to any one of the preceding claims, further comprising the step of deciding on those parameters to be included in said network parameter information based on said topology information.
13. A method according to any one of the preceding claims, wherein said network parameter information comprises an updating information sent to each offspring node.
14. A method according to claim 13, wherein said updating information comprises a branch information, a parameter update information and a node identification of the network node at which said network parameter change has occurred.
15. A method according to claim 13 or 14, further comprising the step of distributing a received updating information from an offspring node of said network node to an offspring node of said offspring node based on said branch information.
16. A method according to any one of claims 13 to 15, further comprising the step of updating a parameter information stored at said offspring node using said updating information.
17. A method according to claim 1, wherein said transmission network is a radio access network based on internet protocol technology.
18. A network node for distributing a network parameter information to other network nodes of a transmission network, said network node being ar-

- 5 ranged to detect a change in a network parameter related to said network node, and to distribute said network parameter information indicating said network parameter change towards said other network nodes in response to said detection and in accordance with a spanning tree of routing paths corresponding to the shortest paths from said network node to said other nodes.
19. A network node according to claim 18, wherein said spanning tree is derived from a topology information of said transmission network.
- 10 20. A network node according to claim 19, wherein said network is arranged to decide on those parameters to be included in said network parameter information based on said topology information.
21. A network node according to any one of claims 18 to 20, wherein said network node is arranged to distribute said network parameter information to its offspring nodes.
- 15 22. A network node according to any one of claims 18 to 21, wherein said network node is a base station device of a radio access network.
- 20 23. A network node for distributing a network parameter information to other network nodes of a transmission network, said network node being arranged to receive a network parameter information from an upper node, to update a stored parameter information according to said received network parameter information, and to distribute said network parameter information to its offspring network nodes based on a branch information included in said network parameter information, said branch information being derived from a spanning tree routing topology.
- 25 24. A network node according to claim 23, wherein said network node is arranged to update said branch information in said network parameter information before distributing said network parameter information to said other nodes.
- 30 25. A network node according to claim 24, wherein said other nodes are offspring nodes of said network node.

26. A network node according to any one of claims 23 to 25, wherein said network node is a base station device of a radio access network.